Comrade customer
“Such a deal I have for you!”
By Bill O’Brien

FOR SALE: Supersonic Mig 29, Twin Tumansky R330 turbo fans, rated at 11,240 pounds standard thrust. 18,300 pounds of thrust with afterburner. Top speed 2.3 mach (1,500 mph), only 765 hours since new. A steal at $3 million U.S. dollars. Ferry tanks, pilot training, cannons, ammo, air to air missiles and delivery extra. Be the first on your block to break the sound barrier, call Bob Henley at (800) 555-1212 for details.
Now —- is that an advertisement that would make any middle age, chunky jet pilot want-a-be, wet his lips in anticipation. But wait, there’s more, read on. . . If you are a little more conservative, consider a Yak 18, Yak 50/52, An-2, SU-27, Mig 15, 19, 21, or perhaps a Mil 24 helicopter gun ship. Additional makes and models are also available for your collection.
“Why there’s nothing to it my friend,” says the man on the other end of the 1-800 number listed in the ad. “Just plunk your dollars down and get the war bird of your dreams. Are they certified? My friend of course they are certified, depending on the make and model. They are certified by the Russian or the Chinese or Romanian military. Is it hard to get FAA airworthiness certificate? — no problem! Just fill out the FAA forms at the local flight standards district office. Maintenance, — no problem! Maintenance manuals, — no problem, why some are even in English.”

The Quandry
In the last two years there has been an increasing number of applicants requesting the FAA to issue Experimental Exhibition Airworthiness certificates for non-U.S., non-typed-certificated aircraft that have been either flown into the United States under a Special Flight Authorization (SFA) or unceremoniously arriving on our shores in a wooden crate.
The vast majority of these aircraft are ex-Soviet Union surplus military aircraft of questionable vintage. They are being imported by brokers who buy two or more aircraft. After the aircraft arrives here in the states, the broker can request a Special Airworthiness Certificate: experimental/exhibition category from the FAA prior to marketing them to prospective buyers, or they can eliminate the bureaucracy and sell the aircraft in a crate “as is” and let the new owner apply to the FAA for the Special Airworthiness Certificate.

The Rule
FAR 21.191(d) is the rule which allows the issuing of Special Airworthiness, Experimental/Exhibition Certificate. It was never intended to help improve the former communist nations’ balance of payments by increasing their exports for hard currency. Neither was the rule intended to allow brokerage or marketing of foreign military surplus aircraft on an assembly line concept and thus bypass FAA type certification requirements and liability concerns.
The rule 21.191(d) was created to allow individuals to exhibit aircraft of unusual configuration at air shows, motion pictures, television, and similar productions. It was not created to provide individuals with high-speed personal transport or to hop rides at $25 a seat for 15 minutes at air shows.

FAA Concerns
The FAA is held responsible for the safety oversight of aircraft operating in U.S. airspace. An aircraft design is safe when it is built and maintained to a known “airworthiness standard” set by the United States government. That is why the FAA under FAR Parts 23 and 25 and its predecessor, the CAA, under CAR 3 and 4B issued type certificates for aircraft, engines, and propellers. Once an approved “airworthiness standard” is established the next step is to establish a

“performance standard” (Part 43) to ensure that those aircraft will always be maintained to meet its type design.
The biggest problem with these foreign military aircraft is the FAA doesn’t have the slightest idea what airworthiness standard these aircraft were built to. Without knowing the approved standard there’s no way, for instance, to know whether or not the aircraft has pulled a high “G” load in excess of its design standards.
Not that everyone of these aircraft are unairworthy, but without knowledge of the original design airworthiness standard, it’s impossible to inspect or maintain it properly.
Because we do not know the design standard, the aircraft must be placed in the Experimental Category.
Before I go over the FAA requirements to get a Special Airworthiness Certificate for Experimental, Exhibition aircraft, I would like to go over some important questions that technicians should ask before the owner baptizes you with Russian vodka, and names you his crew chief.

Questions a Prospective Crew Chief Should Ask
There are five primary areas of interest that you should question. These are:
First — Are all the aircraft’s maintenance manuals in English, including the accessory manuals? If not, how much will the translation into English cost? If it is already in English, can you get a sample of a manual? Can you understand it?
Second — Are spare parts available? Is there a spare parts list? Is there a parts manual? How much will parts manuals and spares cost? How long will it take to get replacement parts? Will the broker still be in business a year from now? Will any revisions to any of the manuals be forthcoming?
Third — What kind of guarantee does the owner get for his money? If you open a crate and expect to find a sleek fighter and instead find a military reject from the Afghanistan War, what happens next? What happens if some parts are missing or damaged in shipment? Do you get assembly instructions like the kind you get in a model airplane kit or perhaps something a lot less detailed?
Fourth — Will you need special tools to work on the engine or airframe? If you do, can you get them? Even simple items like jack pads, rigging pins, external power plugs and hydraulic hose connections, will all take time to reverse engineer and duplicate.
Fifth — This is perhaps the most important area to inquire about — maintenance training. While all aircraft must satisfy the laws of physics to fly, not all aircraft are built to the same standard. How do you, as a maintenance professional, know that the standard you apply is the right one? These are very sophisticated, high-performance and complex military aircraft. Are you willing to risk the pilot’s life and those on the ground by giving yourself a self-taught course in fighter aircraft repair from maintenance manuals translated into English?

The Procedure: (ref: FAA AIR-200/AFS-300 Memorandum, dated: 8/18/93)
Be aware that the following importation and certification procedures can be long and complicated and because foreign countries are involved, policy on this subject can be changed at any time. Any application to bring a military aircraft into the United States will require an extensive review by the government agencies, starting with Bureau of Alcohol, Tobacco and Firearms, customs of course, in some cases the state department, and winding up with the FAA.
Be advised that anyone who is caught knowingly and willfully falsifying, concealing, or covering up any information requested by the United States government may be subject to a $250,000 fine and/or up to five years in a federal jail cell with a 250-pound Bubba who will look at you funny under hooded eyes. (ref: US Code: 1001;3571).
In case you’re still convinced you still want to proceed, here’s how:

STEP 1: ATF: First government agency you must work with is the Bureau of Alcohol, Tobacco and Firearms (ATF). Go to the library and check Title 27 of the Code of Federal Regulations, Part 47, Sub-Part C. Section 47.21 United States Munitions Import List. Go to Category 8, Aircraft, Spacecraft, and associated equipment to see if the aircraft (e.g.Suhkoi SU-27) you intend to purchase is considered a military aircraft.

If the aircraft was NOT a fighter/bomber/airborne warning, etc. but a military cargo aircraft, or a trainer using reciprocating engines or turboprop engines of less the 600 S.H.P., or an observation aircraft, the ATF doesn't want to talk to you. Those types of aircraft are not on the list.

However, using our "example aircraft" Suhkoi Su-27, ATF will check Jane's All the World Aircraft where a SU-27 it is identified as a fighter. Congratulations!! Your aircraft made the list and now you must move on to Step 2.

STEP 2: If you plan to import several aircraft, you need to register as an importer by filing an ATF Form 4587. The registration fee for one year is $250. If you are only importing an aircraft for your own personal use and you do not intend to offer it for resale, then you don't have to fill out an ATF Form 4587 or pay a fee.

STEP 3: For each aircraft you are importing, regardless of the number, everyone (broker or private individual) must fill out an ATF Form 6 Part 1 for each aircraft and submit it to the nearest ATF office. If you need additional information from ATF, you can contact them at:

Bureau of Alcohol, Tobacco, and Firearms
650 Massachusetts Ave. N.W.
Attention: Firearms Technical Branch
Room 6450
Washington, D.C. 20226
Tel: (202) 927-8320

STEP 4, State Department: If the aircraft comes from one of the following countries: Albania, Bulgaria, Cuba, Kampuchea, North Korea, Outer Mongolia, Rumania, South Africa, Vietnam and successor governments of the former Soviet Union, then ATF will ask the Department of State, Office of Political and Military Affairs to approve the aircraft for import into this country.

STEP 5, Customs: There are customs documents in addition to an invoice and ATF documentation that needs to be completed for proper importation. These documents may vary due to the reason for importation, the value of the aircraft, the exporting country, etc. Since the import rules are always changing, it would be wise to contact U.S. Customs at:

U.S. Customs Service
Office of Inspection and Control
55 E. Monroe St.
Chicago, IL 60603

Be advised that a customs inspector will check the aircraft and its paperwork with a jaundice eye.

STEP 6, FAA: If you want to fly your military

SU-27 aircraft into the United States, a Special Flight Authorization (SFA) from the FAA is required as per FAR Section 91.715. An SFA is a one-time authorization to bring an aircraft into the United States under certain stringent conditions.

You make application at the regional flight standards office or to one of the regional aircraft certification directorate managers. The regional office will want to see copies of your ATF forms and invoices. You can get either one of the regional offices' addresses from the local Flight Standards District Office (FSDO).

Two important requirements of issuing an SFA are: A determination of the proper certification and competency of the pilot to operate in U.S. airspace and that the aircraft is airworthy and capable of safe flight.

Typical SFAs have a 14-day window in which the aircraft has to land at the designated airport. Once on the ground customs will inspect the aircraft and its paperwork.
STEP 7: After customs it's FAA's turn. First you have to "demilitarize" the aircraft before you make application for the Special Airworthiness Certificate. You'd be amazed to learn how much equipment on civilian aircraft such as cannons, rocket pods, armed ejector seats, external jettisonable fuel tanks, and machines guns is frowned upon by both the FAA and the Pentagon.
STEP 8: Next, you will need to request an Experimental Airworthiness Certificate by using an FAA Form 8130-6 Application for Airworthiness certificate. Non-U.S. manufactured aircraft that are U.S. registered MAY be considered for airworthiness certification for the purpose of exhibition or air racing if the applicant meets the requirements of Part 21, Section 21.191 (d) or (e).
STEP 9: Along with your application form you must supply the FAA with a program letter setting forth the purpose for which the experimental aircraft is to be used. This includes the names and locations of the air shows or races the aircraft will be flown to. In the case of a TV or movie production, the date and location of the production is needed. Applicants who do not submit a specific program letter will not be issued an experimental certificate.
STEP 10: In addition to the application, and program letter, the owner of the SU-27 must supply an inspection program that meets the requirements of FAR section 91.409 (e)(f)(4). The applicant must also show the FAA that he/she has flight, maintenance, and inspection manuals, along with the flight and maintenance log books all translated into English.
STEP 11: The FAA will then inspect the aircraft to ensure that the applicant has accomplished an inspection in accordance with the appropriate military/manufacturer maintenance instructions, the aircraft is properly registered, and the word experimental is displayed in accordance with FAR section 45.23 (b). Any placards, instrument markings, and instruments must be identified in English and those instruments necessary for operations in U.S. airspace replaced by instruments meeting U.S. standards.
STEP 12: If everything checks out the, FAA inspector signs the log book that states that the Special Airworthiness Certificate, Experimental, Exhibition and a set of Operating Limitations which spells out a flight test area, flight corridors over congested areas, flight test time, noise requirements, and authorized areas of operation has been issued. The Special Airworthiness Certificate and operating limitations will be good for one year or less.
STEP 13: The applicant also is required to sign a statement in the logbook stating that they understand the limitations of an Experimental, Exhibition airworthiness certification and will only fly the aircraft in accordance with those operating limitations.
STEP 14: When the original owner of the aircraft sells the Su-27, the new owner cannot operate the aircraft outside the area described in the original limitations until those limitations are changed by the FAA or a new Experimental Airworthiness Certificate with appropriate limitations is issued.
STEP 15: All flights must be recorded in a log- book that must be carried on board the aircraft. Each entry must list the purpose of the flight, airports, fuel stops, destination, arrival, and total flight time.

Inspection and Maintenance of Experimental Aircraft
Inspection: As the aircraft's crew chief you must carefully read the aircraft's operating limitations section that deals with inspections. It is this document that requires that the aircraft must be inspected under FAA Approved Inspection Program (ref. FAR 91.409 (e)(f)(4).
For our sample aircraft, the Su-27 Operating Limitations should reference the approved inspection program the owner submitted with his application. You must inspect each item listed at the required inspection interval and approve the aircraft for return to service in the aircraft's maintenance record using your name and certificate number.

Maintenance: Unlike performing maintenance on U.S.-registered, type-certificated aircraft that require a certificated person to sign off the work, maintenance on experimental aircraft can be performed by anyone. Why? Because FAR 43, Section 43.1 Applicability, states that FAR 43 does not apply to aircraft that have never had any kind of airworthiness certificate (e.g. SU-27) and have been issued an Experimental Airworthiness Certificate.

Why? because it's unfair for the FAA to hold a certificated technician responsible to a performance standard (Part 43) when there's no recognized airworthiness standard (Part 23-25) to meet.

So when you're called in to perform an approved inspection program, be very careful, professional, and suspicious when working on these kinds of aircraft. Check everything twice — especially areas where any maintenance was performed. You never know if Bubba's brother Bo was called in and he made some questionable field repairs.

Additional information on this subject can be found in FAA Order 8130.64 Experimental Certification Requirements and Operating Limitation for Surplus Military Turbine Powered Aircraft, FAA Order 8130.2B, Airworthiness Certification of Aircraft and Related Approvals, and FAA Order 8300.10 Airworthiness Inspector's Handbook.